

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region I - EPA New England

Author: Andrew Spejewski

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Reviewed by:

Reviewed date:

I. Facility Information

- A. Facility Name:* Town of Weymouth MS4
B. Facility Location: Town of Weymouth Department of Public Works
120 Winter Street
Weymouth, MA 02188
C. Facility Contact: James Donovan
D. Contact Mailing Address: As above
E. Permit #: MAR41070

II. Background Information

- A. Date of inspection:* August 14, 2012
B. Weather Conditions: Clear, dry
C. US EPA Representative(s): Andrew Spejewski, EPA, Inspection lead
Denny Dart, EPA
Margie Brenner, EPA
D. State/Local Representative(s): No state representatives
E. Previous Enforcement Actions: A DEP consent order in the 1990s addressed sanitary sewer overflows in the Town.

Jeffrey Bina, Director of Public Works, Town of Weymouth, (781) 337-5100
James Donovan, Civil Engineer, Town of Weymouth, (781) 337-5100 x349
Andrew (Chip) Fontaine, Town Engineer, Town of Weymouth
(781) 337-5100 x318
Carter Fahy, Environmental Partners, (617) 637-0234
Samantha Woods, Executive Director,
North and South Rivers Watershed Association, Inc.
(781) 659-8168
Mary Ellen Schloss, Conservation Director

Pre-Inspection

The inspection was arranged two weeks in advance by Mr. Spejewski.

Opening Interview -- Andrew Spejewski

By previous arrangement, all EPA personnel arrived at the Department of Public Works (DPW) building at 120 Winter st at 8:00 AM.

In attendance were:

Jeffrey Bina, Director of Public Works, Town of Weymouth, (781) 337-5100

James Donovan, Civil Engineer, Town of Weymouth, (781) 337-5100 x349

Andrew (Chip) Fontaine, Town Engineer, Town of Weymouth (781) 337-5100 x318

Carter Fahy, Environmental Partners, (617) 637-0234

Samantha Woods, Executive Director, North and South Rivers Watershed Association, Inc.
(781) 659-8168

[Mr. Bina left and rejoined the group at various times during the morning]

Mr. Spejewski and Ms. Dart showed their credentials. Mr. Spejewski explained the purpose of the inspection.

All information following, unless otherwise noted, is from statements by town personnel or town consultants present.

Background

The Town of Weymouth ("Town") has an area of 11,200 Acres 17.5 square miles and population of about 55,000, according to Town representatives.

According to Jeffrey Bina, the Town has spent tens of millions of dollars (sanitary) sewerage the town and the Town is now almost entirely sewerage. There has never been a combined sanitary/storm sewer in the Town.

They have two drinking water treatment plants, one is a year old 35 million dollar plant. They have surface water sources, Whitman's Pond and Weymouth Great Pond, as well as five ground water wells along the Mill River. There are also numerous wetlands and buffer zones in the Town.

The state roads in town are Route 18 and Route 53, and Superhighway, Route 3. There's also an unnumbered Columbian Street to Park to Oak, which is state. Route 3A is also state owned.

The former Weymouth Naval Air Station is located in Weymouth, now being redeveloped as Southfield with a state charter as a corporation. At the moment, the development is not managed by the Town of Weymouth. The Southfield area has separate drainage from the rest of the Town.

There are several non-municipal entities with stormwater discharges: There are rail lines and rail stations, which are all relatively new. There is a shopping mall in the Back River area. MWRA has a pumping station near the Fore River

The Town of Weymouth has a minor stormwater connection with Hingham on the south, and shares a border along Smelt Brook with Braintree on the north, but no significant interconnections.

The Town has two Recreational saltwater beaches (Wessagusset and George Lane) and two state parks. There are stormwater discharges to the beaches, but they were not sure of beach closures due to stormwater discharges. Lane Beach was closed for swimmer's itch last week.

According to the Town's Storm Drain Network map, the town has stormwater discharges to Fore River and the Back River, which both discharge to Boston Harbor. Back River is connected by fish ladders to Great Pond and has one of the most productive herring runs in the state.

Overview of Town MS4 program: Organization and Responsibilities

The Town Water and Sewer Department operates and maintains the sanitary system, though the DPW provides engineering for sanitary sewer design. The stormwater system is handled by Engineering and the DPW.

Mr. Fontaine is primarily in charge of MS4 compliance within DPW, under Mr. Bina.

The Town has contracted with Greenscapes to provide public education. The Health Department, Building Department, Conservation Department and Planning Departments sometimes get involved. (Five municipal departments.) They also interact with MA Department of Transportation. Mr. Fontaine stated that the Town had some formal committee meetings in the past (for instance when writing bylaws) but have not felt the need recently to formally convene.

The Town has a written Storm Water Plan, written by a consultant. Mr. Fontaine offered to send an electronic copy. He admitted it is not completely up to date.

There is a ten year old "Whitman's Pond Watershed Master Plan" for the town's ponds that included sediment testing, sampling, and a nutrient uptake sample. The plan recommended nutrient remediation measures and efforts to address invasive species. The Conservation Agent is currently coordinating an updated study by ESS.

Public Education/Involvement

Samantha Woods, Executive Director of North and South Rivers Watershed Association, Inc., ("NSRW") explained that they contract with the Town, and several other towns, to provide public education. Since 2003, NSRW has been educating homeowners on landscaping techniques to protect water quality. She provided samples of the Greenscape literature they have developed [Material is in hard copy inspection file]. Their web site is www.greenskapes.org.

The NSRW goes into fifth grade classrooms for a week each year and provides materials for teachers on water sources, pollution and conservation. The students play a game called "Watershed Jeopardy." They spend a half day at the school doing field trips to the water treatment plant, herring run and Whitman's Pond, and doing interactive water activities. They reach 500 students plus about 50 parent volunteers. In addition, they send a homework survey home with the students that they are to fill out with their parents.

NSRW uses press campaigns; they set up tables at events such as farmer's markets and the Town pumpkin festival ; they send brochures out with the water bills, and they use social media to reach residents. The web site reaches about 1800 people for all of the communities involved.

Right now, NSRW is providing generic public education but would like to move to education on the specific stormwater infrastructure needs of a particular community, in particular targeting businesses and other audiences aside from the general population. There are other partners in the Greenscapes program on the North Shore and Pioneer Valley.

The total program cost is \$25,000 to \$30,000 for the entire area. Weymouth pays about \$5,000 per year. She offered to provide data on the number of people reached. She sends reports to David Tower at the Town.

Ms. Woods stated there had been a survey back around 2006; she stated (without prompting) that there was no baseline survey, so it was not particularly useful for tracking changes in attitudes. The only conclusion was that direct mail was not particularly cost-effective.

There is a Town storm drain stenciling program in the Whitman's Pond area. The Health Department reaches out to businesses and enforces against any that might have storm water pollution. The Health Department would also handle any public education related to dumping. The Water and Sewer Division has been wrestling with MA DOT regarding salting of Route 3 and its impact on drinking water wells. Norwell and Hanover also have concerns about salt discharges from MA DOT to surface and ground water sources.

[At this point, Ms. Woods left]

Illicit Connection Detection Program

Sanitary Sewer Overflows (SSOs)

According to town personnel, Weymouth was put under a DEP Consent Order in the early 1990s because of SSOs. They used to have a lot of issues with infiltration and inflow. They have lined or replaced sewer system sections that had high I/I or were undersized (spending tens of millions, according to Mr. Fontaine) They are currently working on a sewer repair project from Commercial Street to the end of the park on the Fore River. They are replacing 24 " concrete with 36" PVC. The pipe is below the high tide line and the sewer gasses and salt water have destroyed the concrete.

The Town stated that raising the price on water reduced consumption, which in turn reduced flows.

Town personnel could not remember the last SSO in the town, at least several years ago.

Mapping of Storm System

The Town has a GIS map of the storm system. A printed copy was shown during the audit. The map included outfalls, catchbasins, pipes, manholes and detention basins.

The map denotes out-of-network connections and manholes. To make the map, the Town started with a flyover to visually find catch basin grates and man-holes. The Town hired Beta Group to create the map. The contractor popped all man holes to verify pipe size.

There is a finer "assessor's" map set that provides close-up detailed maps of each area of town. This is available on the Town website but you need a Town login.

The map is available to town personnel from a website.

The outfalls are tracked on a database, which includes pictures and screening results.

Screening for Illicits

Consultants Beta Group observed all outfalls and sampled all the outfalls with dry weather flow. They did not pop manholes and sample in structures. Beta Group created a database with photographs and data. During the screening, Beta Group found some buried outfalls, which they call "bubblers." The Town provided a summary of Beta Group's test results for sampling at outfalls with dry weather flows [in file], with Beta Group concluding there were no illicit present. Mr. Fontaine admitted he did not remember what Beta Group's criteria for concluding no illicit were present. Mr. Fontaine stated for further screening, the town would develop criteria based on the new MS4 permit.

[The Beta Group results show results for 33 outfalls. Four had bacteria results between 100 and 200 cfu, in each of these, surfactants and ammonia results were low.]

The report notes storm pipes needing repair. According to Chip, each year, the DPW has a work list of repairs for stormwater pipes.

Mr. Fontaine said any complaints about overflows, flooding or illicit discharges from storm pipes would come into various departments of the Town, likely DPW or the Health Department. He said the departments coordinate closely.

According to Mr. Fontaine, the Health Department sometimes samples catch basins or stormwater outfalls in response to complaints. When repair is needed, the Health Department contacts the DPW. Mr. Fontaine said last week there was a state road oil spill into the stormwater catch basin and several Town departments responded.

Mr. Fontaine said the Health Department has found high bacteria in a few catch basins and the DPW has helped to resolve these. According to Mr. Fontaine, about five years ago the Health Department found an illicit that the DPW helped remove. In the area of Legion Field, a former high school football field, the storm drain system had high coliform levels. This was due to a septic system for the grandstand restrooms which have now been removed. At one point they saw high coliform on a tidal culvert on the Back River. The Health Department, with help from the DPW, sampled all the structures, dye tested septic systems, and didn't find the source, but Mr. Fontaine has not heard of bacteria issues at that location since then.

Mr. Fontaine has a file drawer called "Drainage Problems". Mr. Spejewski asked for a copy of the master list of projects. He provided a copy of the list [in file]. Mr. Spejewski asked about a typical project and Mr. Fontaine described the crushed culvert from Legion Field to Puritan Road. Mr. Spejewski asked whether the Puritan Road project was on the Drainage Problems list but it was not.

Dumping Prohibition

If there is dumping on town property, the Town puts up "no dumping" signs and the Health Department has installed video cameras and prosecuted dumpers. The Health Department ordinance allows them to levy fines for dumping. The DPW would not necessarily hear about dumping into stormwater catch basins unless the dumping affected the structures. Fontaine said the Health Department handles dumping in storm drains.

The Town has the authority to require removal of illicit [a town memo including a copy of the illicit discharge ordinance passed in 2008 is in the inspection file], but Mr. Fontaine did not know of any instances when this authority was exercised. He said that as Town Engineer, he is not aware of everything other departments do, so the Health Department might have required removal of illicit connections.

All ordinances are on the Town of Weymouth website.

The DPW handles all street sweeping and catch basin cleaning. Maintenance of sewers, if replaced in kind, is handled by the DPW as well [See below under Municipal Operations]. Engineering gets involved when there is a flooding problem that requires a bigger pipe or a design change.

[At this point, Ms. Dart left the inspection]

Municipal Operations

There is no long-term replacement plan for storm sewer infrastructure. Replacement as needed. There is a complaint/problem tracking system.

There is no plan or system for inspecting detention basins. The GIS system does include detention basins; personnel were unsure if this included privately-owned controls or not. The DPW does not require a maintenance plan for privately-owned stormwater controls; it is possible the Conservation Commission might for their projects.

Catchbasins are cleaned with a clamshell and a vacuum truck. They are tracked on a tally sheet. Sediment is stored at the yard with street sweepings and then removed by a contractor [a copy of a bill for removing sweepings is in the inspection file]. The town estimates about 350 are cleaned each year out of a total of about 4,000. [A copy of a catch basin cleaning log is in the inspection file]

Streets are swept with two brush sweepers. The entire town is swept in the spring, including school and town parking lots. Spot sweeping and busy streets are swept throughout the year.

Snow/ice control is mostly salt. The town mixes with sand if the amount of salt on hand gets low.

The Parks division is part of DPW. There is no master pesticide or fertilizer plan. Personnel stated there are only four fields maintained by the town, through a commercial contractor. DPW does have a certified pesticide applicator (also the arborist).

The town does no active training of DPW employees on stormwater.

The DPW yard performs vehicle maintenance for fire, police and DPW vehicles. The school department has a separate facility.

[The group toured the DPW Yard at 120 Winter St. There is a separate inspection report for the yard].

Industrial/Construction Project Regulation

Authority

If a construction project disturbs more than an acre, have to comply with state and federal stormwater requirements. If any project permit application comes in, the project goes through stormwater review. [A copy of a Town memo from 2008 including a copy of the newly passed stormwater management ordinance is in the case file].

Review

The planning department coordinates plan review, with the DPW and others commenting. The DPW Engineering group reviews plans for compliance with the MA stormwater guidelines.

Mr. Fontaine estimated about 4-5 projects per month are reviewed.

The town will accept detention basins at developments for town ownership.

Mr. Fontaine showed Mr. Spejewski files for projects in town. Mr. Spejewski examined the file for the Norma Road project. Documents showed several exchanges between the town and the developers regarding stormwater management at the site. [The inspection file includes copies of a page of comments from the DPW on erosion controls, and a copy of the first page of a cover letter from the project consultants to the Conservation Commission submitting a revised site plan, and addressing stormwater comments from the town. The second item, though addressed to the Conservation Commission, had a copy in the DPW files.]

Construction Site Erosion Control- DPW [See below for Conservation Agent interview]

The DPW may require erosion controls (the ConcComm also). The DPW may inspect sites for erosion issues. There is no set policy or guideline for number of inspections or required inspections of erosion controls at any point in the process.

The typical procedure if issues are noted is to contact the owner. If multiple calls are needed, notes will typically be made in the file. Additionally, the ConComm or Health Department could be contacted for action.

Some DPW personnel have attended erosion controls.

There is no set policy on when to inspect or number of inspections. While it has not been tested, Mr. Fontaine believes the DPW has sufficient authority to require erosion controls. The DPW can also hold the occupy permit if necessary.

Mr. Fontaine has a computer file listing active projects in town (Mr. Spejewski was shown the file) although there is currently no procedure for closing out and removing projects from the list.

[At this point, the group broke for lunch, after arranging for afternoon interviews at Town Hall with Conservation and the Health Department]

Plan Review/Erosion Control – Conservation Commission

Mr. Spejewski then interviewed Mary-Ellen Schloss, Town Conservation Agent.

Ms. Schloss stated that she only reviews projects within wetlands jurisdiction, but most projects are subject. Typically the DPW will not review projects as thoroughly if they know that Conservation is reviewing the project. At times, she will use a DPW engineer as a consultant for her review.

Ms. Schloss stated that she has gotten referrals about issues at sites from other town personnel.

There is no set policy on maintaining controls. In fact, according to Ms. Schloss, she is currently trying to get a subdivision owner to maintain a pond.

Ms. Schloss maintains a list of current projects on a spreadsheet with perhaps 10-15 active projects at any time. She does not track individual inspections.

Enforcement is generally informal, Ms. Schloss says there have been a couple of fines in the last 8 years. She stated that she puts significant effort into monitoring town-owned projects.

Ms. Schloss stated that she has not been involved in any sampling.

IDDE- Board of Health

Mr. Spejewski then interviewed Daniel McCormack, Director of Public Health and Matthew Brennan, Environmental Health Officer. Mr. McCormack said the Board has not done any recent sampling. The former director had done several different rounds of testing around 2007. Mr. McCormack believed plans of outfalls were obtained from the DPW.

Some signs of sewage had been found near the Fore River, but dye testing at a pump station revealed no discharges from the station.

The Health Department did receive copies of the Beta Group dry weather testing in 2004.

Mr. McCormack said the Health Department tests the two saltwater beaches in town, but the beaches are almost never closed due to bacteria. Mr. McCormack thought once in the last three years.

Mr. McCormack said about 450 properties in town were not on the sanitary sewer, though the Health Department is working to encourage moving these to sanitary sewers.

Mr. McCormack stated that the Board of Health inspects industrial facilities in town for stormwater concerns. He provided copies of several orders from the Board of Health requiring control of stormwater/washwater at industrial facilities in the town [in inspection file]

[At this point, Mr. Spejewski and Ms. Brennan returned to the DPW yard].

Mr. Spejewski conducted a closing conference with Mr. Fontaine and Mr. Bina. Mr. Spejewski noted that the Winter street yard was potentially subject to SPCC regulations but did not have a SPCC plan. Mr. Spejewski also noted that a five-year catchbasin cleaning schedule is slower than EPA Region I thinks is optimal. Finally, Mr. Spejewski expressed concern that, with investigations of potential illicit connections split between the DPW and the Health Department, there was the potential for investigations to fall through the cracks or be seen as optional by the Health Department, when investigations are a requirement of the MS4 Permit. Mr. Spejewski thanked them for their time and left the site.

